

# FILE NOTATIONS

Entered in NID File

Entered On S R Sheet

Location Map Pinned

Card Indexed

I W R for State or Fee Land

Checked by Chief

Copy NID to Field Office

Approval Letter

Disapproval Letter

## COMPLETION DATA:

Date Well Completed

OW

WW

TA

GW

OS

PA

Location Inspected

Bond released

State of Fee Land

## LOGS FILED

Driller's Log

Electric Logs (No. )

E

I

E-I

GR

GR-N

Micro

Lat

Nr-L

Some

Others

THIS IS THE 1-A WELL  
THE #1 WELL (019-15007)  
PRODUCED FROM MRSN  
465-475'.

THE 1-A COMPLETED AT  
456-475'. CAN I SAFELY  
ASSUME IT IS MRSN  
ALSO??

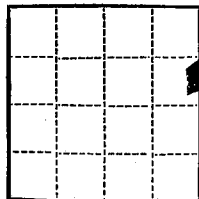
AWAITING A DECISION.

VICKY

4-21-99

---

MRSN for this well.  
Put zone in new  
system. CHD 4/22/99



(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-R358.4.  
Form Approved.

Land Office Salt Lake City

U 034745

Lease No. \_\_\_\_\_

Unit #1

## SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	X	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Well No. Dutch Federal #1A is located 330 ft. from SW line and 2310 ft. from W line of sec. 29  
SE SE $\frac{1}{4}$  SW $\frac{1}{4}$  29 20S 24E SLB&M  
 (¼ Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
Development Grand Utah  
 (Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 4550 ft.

### DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Requesting permission to drill an off-set hole, 15 ft. S.W. of present well. Object, to increase production in this oil zone. The inside casing in this well is too small.

Proposed work: Set 7" I. D. surface casing.  
 Drill with 6 $\frac{1}{4}$ " rotary bitt through the oil zone.  
 Take 4" core.  
 Ream and set 5 $\frac{1}{2}$ " inside casing through the oil zone.  
 I want to leave #1 pumping until this off-set is finished and then plug the lowest producer of the two.

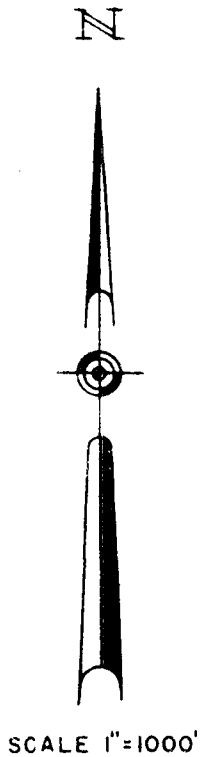
I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company H. & A. oil Co. George Hertzke Leasor

Address 1600 White Ave.  
Grand Junction  
Colo

By George A. Hertzke  
 Title Leasor

2300 FT. EWL—319.4 FT. NSL  
SEC. 29, T20S, R24E  
S.L.B. & M.



*Richard J. Mandeville*  
Registered Engineer & Land Surveyor

Grand Junction, Colo. 7/27/64

July 17, 1964

H. & A. Oil Company  
1600 White Avenue  
Grand Junction, Colorado

Attention: Mr. George A. Hertzka, Leasor

Re: Notice of Intention to Drill Well No.  
DUTCH FEDERAL #1-A, 330' FSL & 2310'  
FWL, SE SE SW of Section 29, T. 20 S.,  
R. 24 E., SL&M, Grand County, Utah.

Gentlemen:

Insofar as this office is concerned, approval to drill said well is hereby granted, provided that either this well or the Dutch Federal #1 Well is plugged, as so stated in your Notice of Intention to Drill.

Before any operations can be conducted regarding the cementing of surface casing or plugging of either well, it will be necessary to notify at least one of the following personnel so that he may be present to witness the program:

PAUL W. MURCHILL, Chief Petroleum Engineer  
Office: DA 8-5771 or DA 8-5772  
Home: CR 7-2890 - Salt Lake City, Utah

HARVEY L. COCKEY, Petroleum Engineer  
Office: AL 3-3161  
Home: AL 3-9076 - Moab, Utah  
Mobil Phone No. 52 - Out of Monticello

U. S. GEOLOGICAL SURVEY  
Office: 524-5650 - Salt Lake City, Utah

If for some unforeseen reason you should fail to plug one of these wells, the Commission reserves the right to take any action as will offset any advantage which you have secured over other producers in the area by reason of this exception. This approval terminates within 90 days if this well has not been spudded within said period.

July 17, 1964

Enclosed please find Form OCCC-S-X, which is to be completed if water sands (aquifers) are encountered while drilling, particularly assessable near surface water sands. Your cooperation with respect to completing this form will be greatly appreciated.

We note that the proposed location for this well is exactly the same as that for the Dutch Federal #1, therefore, would you please furnish this office a surveyor's plat prior to spudding in.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FRIGHT  
EXECUTIVE DIRECTOR

CBF:kgv

cc: Rodney Smith, District Engineer  
U. S. Geological Survey  
Salt Lake City, Utah

H. L. Coonts, Petroleum Engineer  
Oil & Gas Conservation Commission  
Moab, Utah

Enclosure - Forms

P. S. Incidentally, our reservation in Paragraph 3 will not apply if these wells are producing from different formations.

PLUGGING PROGRAM FORM

Name of Company H & A Oil Company Verbal Approval Given To: Walter Broadhead

Well Name: Dutch Federal #1-A ✓ Sec. 29 T. 20 S. R. 24 E County: Grand

Verbal Approval Was given to plug the above mentioned well in the following manner:

5 sacks across perforations at 462-472'. Will attempt to recover as much 4½" casing as possible, and place a 10 sack plug across the base of the surface pipe at approximately 100' with a standard marker. (Although the marker may not be put on because it is so close to the producing well.)

Date Verbally Approved: March 29, 1967 Signed: RODNEY A. SMITH, U.S.G.S.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Form approved  
Bureau of Reclamation No. 42-2222-1  
Salt Lake City  
Lead Office  
LEASE NUMBER 8 034743  
UNIT

# LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah County Grand Field \_\_\_\_\_  
The following is a correct report of operations and production (including drilling and producing wells) for the month of July, 1964,  
Agent's address Jerry Phillips Company A. & A. Oil Co.  
Signed \_\_\_\_\_  
Phone 242-1035 Grand Junction, Colo. Agent's title Lease

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of sand)
SE 1/4 SW 1/4	20S	24E	1	15	77	33.6	trace	none	none	depth 725
SW 1/4 SE 1/4 SW 1/4	20S	24E	3							temp. idle
SE 1/4 SW 1/4	20S	24E	1	off-set						depth 100ft. surface pipe set

NOTE.—There were no runs or sales of oil; \_\_\_\_\_ M cu. ft. of gas sold;

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.



Aug. 1, 1964

The State of Utah  
Oil & Gas Dept.  
Salt Lake City, Utah

Re: Dutch #1  
U 034745  
Sec 29 T20S R24E

SLB&M

Enclosed find survey map on Dutch #1 - off-set, as you  
requested.

George Hertzke

STATE OF UTAH

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

U 034745

OIL & GAS CONSERVATION COMMISSION

# WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other ☐

b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other Off set

2. NAME OF OPERATOR

George Hertzke

3. ADDRESS OF OPERATOR

1600 White Ave. Grand Junction, Colo

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface

319.4 ft. N of South line & 2300 ft. E of West Line

At top prod. interval reported below

Elevation 4485'

At total depth

14. PERMIT NO.

DATE ISSUED

12. COUNTY OR PARISH

Utah-Grand

13. STATE

Utah

15. DATE SPUDDED

Aug 11 1964

16. DATE T.D. REACHED

Aug 18 1964

17. DATE COMPL. (Ready to prod.)

18. ELEVATIONS (DF, REB, RT, GR, ETC.)\* 4485'

19. ELEV. CASINGHEAD

same

20. TOTAL DEPTH, MD & TVD

476'

21. PLUG, BACK T.D., MD & TVD

22. IF MULTIPLE COMPL., HOW MANY\*

23. INTERVALS DRILLED BY

ROTARY TOOLS

CABLE TOOLS

all the way

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*

456' to 475'

MRSN/CHD/4/22/99

25. WAS DIRECTIONAL SURVEY MADE

26. TYPE ELECTRIC AND OTHER LOGS RUN

27. WAS WELL CORED

Yes

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
7"	17lbs	100'	9 1/2"	20 sacks - circulated	
4 1/2"	9 1/2 lbs	457'	6 1/4"	8 " "	
5 1/2"	12 lbs.	19'	"		

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
2-3/8"	surface	460'		

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	460'	

31. PERFORATION RECORD (Interval, size and number)

Set pre-perforated tubing. 5 1/2"

50 1/2" holes 19ft.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.\* PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
Aug. 25 1964		pumping		1½" 24" stroke		producing	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
	24		→	7 ✓	—none— trace	2bbls ✓	
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
		→					

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

*George Hertzke*

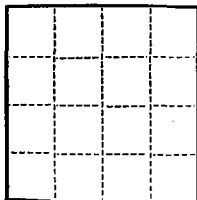
TITLE

Leason

DATE

Sept 3-64

\*(See Instructions and Spaces for Additional Data on Reverse Side)



(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-R358.4.  
Form Approved.

Land Office **Salt Lake City**

Lease No. **U 034745**

Unit

**SUNDRY NOTICES AND REPORTS ON WELLS**

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY
NOTICE OF INTENTION TO ABANDON WELL	

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

*Dutch Federal*

**September 5**, 19**64**

Well No. **1 off set** located **319.4** ft. from **[X] S** line and **2300** ft. from **[X] W** line of sec. **29**

**SE 1/4 SW 1/4** **205** **24E** **20S** **24E** **SLBGM**  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

(Field)

**Grand**  
(County or Subdivision)

**Utah**  
(State or Territory)

The elevation of the derrick floor above sea level is **4485** ft.

**DETAILS OF WORK**

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

**Drilled 105' with 9 1/2" bit. Set 100' - 7" pipe (weight 17 lbs.)**

**Circulated 20 sacks cement. Let set 24 hours.**

**Drilled with 6 1/2" bit to 456'. Cored with 4" core barrel through sand formation. Reamed core hole with 6 1/2" bit to 476'.**

**Set 457' pipe - 4 1/2" weight 9 1/2 lbs. - and 19' - 5 1/2" (weight 12 lbs) on through oil zone. This 19' was perforated before setting.**

**Set packer at 458'. Cemented with 8 sacks cement from 458' up.**

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

**Oil sand is not cemented.**  
**Company and its agent** **George Hertzke**

Address **1600 White Ave.**

**Grand Junction, Colo**

By

Title **Lease**

September 24, 1964

H. & A. Oil Company  
1600 White Avenue  
Grand Junction, Colorado

Attention: Mr. George A. Hertzke, Leasor

Re: Well No. Dutch Federal #1-A  
Sec. 29, T. 20 S., R. 24 E.,  
Grand County, Utah

Gentlemen:

Our records indicate that you have not filed a Monthly Report of Operations for the month of August, 1964, for the subject well. Rule C-22 (1), General Rules and Regulations and Rules of Practice and Procedure. Utah State Oil and Gas Conservation Commission require that said reports be filed on or before the sixteenth (16) day of the succeeding month. This report may be filed on Form OGCC-1b. ( U. S. Geological Survey Form 9-331, "Sundry Notices and Reports on Wells"). or on company forms containing substantially the same information. We are enclosing forms for your convenience.

Your immediate attention is required in this matter.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

KATHY G. WARNER  
RECORDS CLERK

KGW:ms

Enclosure - Forms

October 26, 1964

George Hartsho  
1650 White Avenue  
Grand Junction, Colorado

Gentlemen:

Upon receiving your "Well Completion or Recompletion Report and Log" for Well No. Dutch Federal #1-A, it was noted that the formation tops, core data and electric and/or radioactivity logs were omitted. It would be appreciated if you would complete the enclosed Forms OCCC-8-X, and return to this office as soon as possible.

It was also noted from your "Well Completion or Recompletion Report and Log" for Well No. Dunn Federal, that the plugged and abandoned data was omitted.

Thank you for your cooperation with respect to these requests.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

KATHY S. WARNER  
RECORDS CLERK

kgw

Enclosed - Forms

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Form approved.  
Budget Bureau No. 42-R356.5.

LAND OFFICE **SALT LAKE CITY**  
LEASE NUMBER **U 034745**  
UNIT **1**

**LESSEE'S MONTHLY REPORT OF OPERATIONS**

State **UTAH** County **GRAND** Field **GRAVEL PILE**

The following is a correct report of operations and production (including drilling and producing wells) for the month of **DECEMBER**, 19 **66**, **GEORGE HERTZKE**

Agent's address **1600 White Ave. Grand Junction, Colo.** Company **H. & A. OIL CO.**

Signed *Geo. A. Hertzke*

Phone **242-1035** Agent's title **Lease**

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL No.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
SW¼ SE¼	20 S	24 E	1	0	1					
NW¼ SE¼ SW¼	20 S	24 E	4							idle

NOTE.—There were ~~3~~ runs or sales of oil; \_\_\_\_\_ M cu. ft. of gas sold;

\_\_\_\_\_ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Branch of Oil and Gas Operations  
8416 Federal Building  
Salt Lake City, Utah 84111

April 5, 1967

Mr. George Hertzke  
1600 White Avenue  
Grand Junction, Colorado 81501

Dear Mr. Hertzke:

Enclosed is an approved copy of your Notice of Intention to Abandon well No. 1-A, SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 20 S., R. 24 E., and an approved copy to re-enter and deepen the suspended well No. 4, NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 20 S., R. 24 E., both wells on lease Utah 034745, Grand County, Utah.

On March 29, I discussed and verbally approved a plugging program for well No. 1-A with Walter Broadhead which was different than that described on the attached notice as follows:

1. 5-sack cement plug across the producing interval from 475' to about 400'.
2. Recover as much 4 $\frac{1}{2}$ " casing as possible and set a 10-sack cement plug across the stub of the casing or across the base of the surface pipe at 100'.
3. Set a 5-sack cement plug in the top with a standard marker or leave off the marker if it would be in the way of operations of No. 1 well 15' away.

I understand that the above work has now been completed. Your subsequent report of abandonment should be furnished as soon as possible and should include the details of the work accomplished including size and depth of plugs, amount of pipe recovered and date the work was completed.

On March 29 and today, I verbally discussed with Mr. Broadhead the re-entry and deepening of your well No. 4 and the possible conflict of this well with the proposed location of the Interstate highway, I-70, should it be completed as a producing well. It is my understanding that the well will

be re-entered and tested for oil or gas shows at its present depth of about 550'. Then the well will be deepened not more than 150' to test the Brushy Basin member of the Morrison formation for oil or gas shows. My approval of these operations is conditioned upon the following:

1. If oil or gas shows are encountered in sufficient quantities that you plan to complete the well as a producer, that you notify me prior to running production casing so that I may witness tests of the oil or gas shows before the completion operations are commenced.
2. If oil or gas shows are not encountered, that you plug and abandon the well immediately and that you contact me for approval of a plugging program prior to commencing the plugging operations.
3. Within 15 days following completion of the well that you file the log or history of the well on form 9-330, in duplicate, along with two copies of all logs or other information as described in paragraph 221.59 of the attached Oil and Gas Operating Regulations, and the sundry notice forms as may be necessary. I am enclosing a supply of these forms for your use.

I am sending a copy of this letter to the Utah Oil & Gas Conservation Commission and Mr. Broadhead at Cisco, Utah. If you have any questions on this matter, please contact me.

Sincerely yours,

(ORIG. SGD.) R. A. SMITH

Rodney A. Smith  
District Engineer

**Attachments**

cc: ✓ Utah Oil & Gas Conservation Commission  
348 East South Temple, Suite 301  
Salt Lake City, Utah

Mr. Walter Broadhead  
Cisco, Utah



Form 9-281a  
(Feb. 1961)

RECEIVED
BR. OF CR. & E'S OPERATIONS
APR 3 1967
U.S. GEOLOGICAL SURVEY
RECEIVED UTAH

(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Budget Bureau No. 42-R358.4.  
Form Approved.

Land Office SALT LAKE CITY

Lease No. U 034745

Unit 1 A

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....		SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....	X		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

APRIL 1, 1967

Well No. 1A is located 330' ft. from [N] line and 2310 ft. from [E] line of sec. 29

SE $\frac{1}{4}$  SW $\frac{1}{4}$  20S 24E SL&M  
( $\frac{1}{4}$  Sec. and Sec. No.) (Twp.) (Range) (Meridian)  
GRAVEL PILE GRAND UTAH  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is -55445ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Will use 5 sacks of cement in bottom, up through oil zone.

Will cement top with standard pipe marker.

Will leave pipe in hole. 482'—4 $\frac{1}{2}$ " pipe

100' 7" surface pipe/

*See attached letter for conditions*

Approved APR 3 1967

(ORIG. SGD.) R. A. SMITH

District Engineer

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company GEORGE HERCZKE

Address 1600 WHITE AVE.

GRAND JUNCTION, COLO. 81501

By R. A. Smith

LEASEE

Title

COPY RETAINED DISTRICT OFFICE

APPROVED BY UTAH OIL AND GAS  
CONSERVATION COMMISSION

DATE: 4-10-67 by Richard A. Burchell  
Chief Petroleum Engineer